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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,226	02/19/2004	Kenneth E. Conley	129M-0187U	5219
37953	7590	04/27/2005	EXAMINER	
MILLER, EVERMAN & BERNARD, PLLC 4701 HEDGEMORE DR., SUITE 2500 CHARLOTTE, NC 28209			MACK, RICKY LEVERN	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,226

Applicant(s)

CONLEY ET AL.

Examiner

Ricky L. Mack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8 and 14 is/are rejected.
- 7) ☒ Claim(s) 4, 5 and 9-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0204.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Detailed Action.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 2/19/04 has been considered by the examiner.

Claim Objections

2. Claim 13 is objected to because of the following informalities: In claim 13, line 6 the phrase "cutting the engraved the metal" should be changed to "cutting the engraved metal". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 6, 8 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Young et al. (5699190).

Young discloses, as in claims 1 and 14, an apparatus with inherent method comprising the steps of:

providing a substrate of transparent material having a first side and a second side and an index of refraction greater than one; and forming a plurality of lenses on the first side of the substrate in pre-selected portion thereof, wherein the remainder of the first side outside the pre-selected lens portions is

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unaltered (see figs. 1-2, ref. 22; and the blank space under reference 40 in fig. 3). The material making up the optical element disclosed by Young inherently has an index of refraction greater than 1.

Young discloses, as in claims 2 and 14, the step of creating a cutting tool (20); engraving a plate or cylinder with cutting tool to form an inverse lens pattern in pre-selected areas (col. 4, lines 9-23), using the engraved plate or cylinder in an extrusion embossment process such that the substrate can be embossed with the lens pattern (see figures 4 and 5 below).

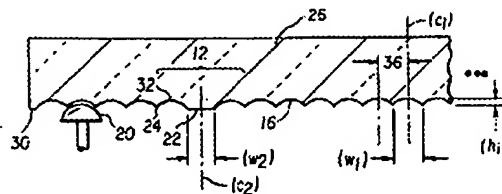


FIG. 4

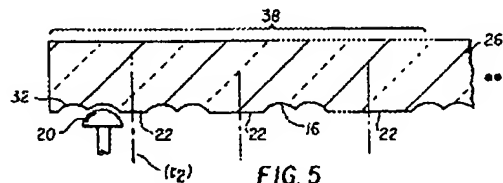


FIG. 5

Young discloses, as in claim 6, wherein the plurality of lenses (16) comprises two different types of lens patterns (see fig. 1 where there a different number of lenses on both sided of the planar/unaltered portion).

Young discloses, as in claim 8, that the substrate is an energy cured thermo set resin (see col. 4, lines 9-15).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

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matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (5699190) in view Goggins (5488451).

Young discloses the claimed invention except for disclosing a step of utilizing a computer to control and direct the direction and depth of the engraved lens pattern as in claim 3. Goggins discloses that computers can be used to control engraving. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the optical device disclosed by Young with a computer, as taught by Goggins, since it well known in the art utilize a computer to program the desired direction and depth of engraving. The use of a computer would be beneficial since controlling the degree of direction and depth would be beneficial in the art.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (5699190) in view of Karszes (5362351).

Young discloses the claimed invention except for the limitation that the sheet can be reverse printed by lithography, gravure, flexography, ink jet or screen, as in claims 7. Karszes discloses (col. 9, lines 12-15) that it is known to provide a print pattern to a lenticular lens by employing a chill roll that has been tooled on a gravure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the optical device of Young with the reverse printing capability using a gravure as disclosed by Karszes for the purpose of forming a graphical image to view through a lenticular lens array.

Allowable Subject Matter

8. Claim 13 is allowed.

9. Claims 4, 5 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for allowability: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

The prior art fails to teach a combination of all the claimed features as presented in claim(s) 4 and 9-12, wherein the claimed invention comprises masking desired portion of an engraved plate or cylinder and electroplating the plate or cylinder with metal, as claimed;

The prior art fails to teach a combination of all the claimed features as presented in claim(s) 5, wherein the claimed invention comprises engraving a plate or cylinder with a desired lens pattern, removing the undesired portions of the lens pattern using a gravure engraving process and using the resulting plate or cylinder in an extrusion embossment process such that the substrate can be embossed with the remaining lens pattern, as claimed; and

The prior art fails to teach a combination of all the claimed features as presented in claim(s) 13, wherein the claimed invention comprises engraving a desired lens pattern in a surface metal of a flat metal plate or cylinder, the surface metal of the plate or cylinder in which the pattern *is engraved into is loosely bonded and can be removed to become an engraved metal shell*; cutting the engrave metal and *fastening the metal shell into a cylinder or plate to produce the transparent pattern sheet* such that the lens pattern runs along a pre-selected direction, as claimed.

The combination of all the claimed features are not anticipated or made obvious by the prior art and all of said features are relied upon for a determination of allowability.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rice et al. (3241429) is cited for disclosing a lenticular lens a lithographic process, a letterpress process, a gravure process, or a silk screen type process used for purposes of printing a lenticulated image on the flat face or rear face of the lenticular screen.

Torigoe et al. (5812152) is cited for disclosing a lenticular plate with reverse printing using an ink jet.

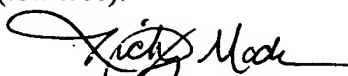
Conley (6373636) is cited for a method for making a lenticular lens by engraving and embossment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky L. Mack whose telephone number is (571) 272-2333. The examiner can normally be reached on Monday-Friday (6:30 AM to 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ricky L Mack
Primary Examiner
Art Unit 2873

RM

April 25, 2005